MAXIMUM RECOVERY DILUENT

Ready to use tubes

INTENDED USE

Ready to use isotonic liquid medium for the preparation of decimal dilutions of feeding stuffs for microbiological examination

TYPICAL FORMULA (g/l)

Enzymatic Digest of Casein	1.0
Sodium Chloride	8.5

Final pH 7.0 ± 0.2

DESCRIPTION

Maximum Recovery Diluent is an isotonic liquid medium for the preparation of initial suspension and decimal dilutions of foods and animal feed stuffs for microbiological examination, prepared according to the formulation given by ISO/DIS 6887-1 (Peptone salt).

TECHNIQUE

In a bowl or plastic bag weigh a mass *m* g or measure a volume *v* ml (minimum 10g or 10ml, unless otherwise stated by specific method) representative of the test sample . The measurement must be ± 2%.

Add a quantity of Maximum Recovery Diluent equal to 9 x *m* g or 9 x *v* ml. This quantity can be measured by mass with a measurement uncertainty of ± 2% or by volume with a measurement uncertainty of ± 5%. It may be necessary in certain cases, particularly for products giving an initial 1+ 9 suspension, which is too viscous or too thick, to add more liquid medium. This should be taken into account for subsequent operations and/or in the resultant expression. If it is necessary, for some enumerations in certain products to fallow below the limit of 10 microorganisms per gram, it is possible to use a smaller volume of diluent. In this case the volume of diluent should be reported in the test report. To avoid damaging the microorganisms the temperature of the diluent during the operation should be approximately the same as the ambient temperature.

Liquid samples: shake the test sample manually by performing 25 up-and down movements of amplitude 30cm in 7s or preferably use a standardised mechanical device to ensure uniform distribution of microorganisms. Take 1ml with a pipette and add this test portion to 9ml of diluent, avoiding contact between the pipette and the diluent. Carefully mix the test portion and the diluent, either by aspirating ten times with a different pipette or in the mechanical mixer for 5 to 10s.

Other samples: operate the peristaltic-type blender for 1-2 minutes according to the nature of the product. Allow the large particle to settle if necessary for up to 15 minutes, then transfer a certain quantity from the top layer of the suspension to a culture tube, flask or bottle using a large pipette.

Further dilutions: transfer, by means of a fresh pipette, 1ml of the initial suspension (primary 1 + 9 dilution , 10^{-1}) into another tube containing 9ml of sterile Maximum Recovery Diluent, avoiding contact between the pipette and the diluent. Mix carefully, either by aspirating ten times with a fresh pipette or in the mechanical mixer for 5 to 10s, to obtain 10^{-2} dilution. If necessary repeat these operations using the 10^{-2} and further dilutions to obtain 10^{-3}, 10^{-4} etc. dilutions, until the appropriate number of microorganisms has been obtained.

Within 30 min. of preparation use the decimal dilutions for inoculating the culture media.

PRECAUTIONS

For laboratory use only. Observe approved biohazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilize all biohazard waste before disposal.

STORAGE

Store at 2-8° away from direct light - When stored as directed the tubed media remain stable until the expiry date shown on the label. Do not use beyond stated expiry date. Media should not be used if there are any signs of deterioration, discoloration or contamination.

REFERENCES

• ISO 6887 Microbiology - General guidance for the preparation of dilutions for microbiological examination. 1983-06-01.
• ISO/DIS 6887 – 1 Microbiology of food and animal feeding stuffs- Preparation of test samples, initial suspension and decimal dilutions for microbiological examination. Part 1, 1997-10-16.

PACKAGING

551691	**Maximum Recovery Diluent**	**20 x 9 ml ready to use tubes**